

REMARKS

Applicants appreciate the Examiner's thorough examination of the present application as evidenced by the Office Action of June 2, 2005 (hereinafter "Office Action"). In response, Applicants respectfully submit that the cited references fail to disclose or suggest, at least, first and second lens assemblies that project first and second arrays of image pixels on a non-planar surface that overlap along a single edge and/or that the first and second arrays of image pixels cover a continuous, 180 degree portion of the non-planar surface. Therefore, Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration of all pending claims is respectfully requested for at least the reasons discussed hereafter.

Objections to the Drawings

The drawings stand objected to under 35 U.S.C. §1.121(d) because FIG. 7 appears blacked out and cannot be seen. Applicants faxed a replacement FIG. 7 in which the black background was removed on May 24, 2005. A copy of the replacement FIG. 7 sheet that was faxed May 24, 2005 is attached hereto.

Independent Claims 1 and 11 are Patentable

Claims 1 and 11 stand rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 3,469,837 to Heilig (hereinafter "Heilig"). (Office Action, page 3). Independent Claim 1 is directed to an optical projection system and recites, in part:

...
a second image source that is configured to generate a second array of image pixels; and
a second lens assembly that is configured to project the second array of image pixels onto the non-planar surface such that the first array of image pixels and the second array of image pixels overlap along a single edge and a combination of the first array of image pixels and the second array of image pixels covers a continuous, 180 degree portion of the non-planar surface.

In particular, Claim 1 recites that the first and second arrays of image pixels overlap along a single edge and cover a continuous, 180-degree portion of the non-planar surface. Independent Claim 11

includes similar recitations.

FIG. 2 of Heilig shows a concave viewing screen in which the image pixels projected from projectors 19 and 20 do not overlap at all. For example, projector 19 is shown as projecting a narrow array of image pixels substantially horizontally in a first position and another narrow array of image pixels that strikes the concave surface 10 near the label 10b in a second position. Projector 20 is shown as projecting a narrow array of image pixels that strikes the concave surface 10 near the bottom loudspeaker 13. Thus, in sharp contrast with the recitations of Claims 1 and 11, the arrays of image pixels that can be projected from projectors 19 and 20 of Heilig do not cover a continuous 180-degree portion of the non-planar surface. Instead, the arrays of image pixels projected from projectors 19 and 20 of Heilig cover very narrow regions of the concave surface 10. Heilig explains that a mosaic of elements is disposed on the concave surface 10 to reflect the rays back to the audience. (Heilig, col. 4, lines 48 - 54). In addition, the image pixels projected from projectors 19 and 20 of Heilig do not overlap along a single edge as recited in Claims 1 and 11. Instead, Heilig shows the beams projected from projectors 19 and 20 as being relatively narrow and explains that the projectors are oriented in directions 90 degrees away from each other. (Heilig, col. 4, lines 34 - 38).

For at least these reasons, the Applicant respectfully submits that Claims 1 and 11 are patentable over the cited references and that dependent Claims 2 - 9 and 12 - 14 are patentable for at least the reason that they depend from an allowable claim.

Double Patenting

Independent Claims 1 and 11 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1 - 34 U. S. Patent No. 6,880,939 to Colucci et al. (hereinafter "Colucci;" Office Action, page 9). The Office Action states that Application No. Colucci does not disclose the first and second arrays of image pixels overlapping along a single edge, but maintains that Heilig provides the missing teaching. (Office Action, page 9). Applicants respectfully disagree. As discussed above with respect to the rejection under 35 U.S.C. §102(b), the arrays of image pixels that can be projected from projectors 19 and 20 of Heilig do not cover a continuous 180-degree portion of the non-planar surface. Instead, the arrays of image pixels projected from projectors 19 and 20 of Heilig cover very narrow regions

of the concave surface 10. In addition, the image pixels projected from projectors 19 and 20 of Heilig do not overlap along a single edge as recited in Claims 1 and 11. Instead, Heilig shows the beams projected from projectors 19 and 20 as being relatively narrow and explains that the projectors are oriented in directions 90 degrees away from each other. (Heilig, col. 4, lines 34 - 38).

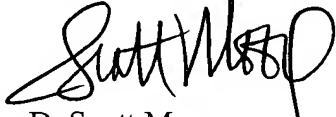
For at least these reasons, the Applicant respectfully submits that Claims 1 and 11 are patentable over the cited references and that dependent Claims 2 - 9 and 12 - 14 are patentable for at least the reason that they depend from an allowable claim.

In re: Colucci et al.
Serial No.: 10/665, 162
Filed: September 17, 2003
Page 8 of 8

CONCLUSION

In light of the above remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application, as amended, is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

Respectfully submitted,

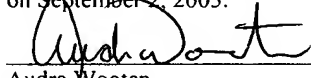


D. Scott Moore
Registration No. 42,011

Myers Bigel Sibley & Sajovec, P.A.
P. O. Box 37428
Raleigh, North Carolina 27627
Telephone: (919) 854-1400
Facsimile: (919) 854-1401
Customer No. 20792

Certificate of Mailing under 37 CFR 1.8 (or 1.10)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 2, 2005.



Audra Wooten